

Amendments to the Claims:

1-72. (Cancelled)

73. (Previously Presented) A method, comprising:

adaptively setting a reservation of channelization codes or an allowed power for a downlink shared channel of a transceiver based on parameters for a minimum allowed spreading factor or an allowed power level;

setting the parameters depending on a traffic load, a total load of a cell, and an availability of channelization codes;

measuring an average transmitted power of a physical downlink shared channel;

measuring a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period;

measuring a weighted code blocking rate, the weighted code blocking rate comprising a relative time during an observation period in which a larger bit rate than an actually allocated bit rate could have been allocated to a user equipment according to a link adaptation criteria for controlling the downlink shared channel;

adaptively adjusting at least one of a root spreading factor and the allowed power for the downlink shared channel of the transceiver based on results of the measuring; and

decreasing the allowed power when  $A$  is smaller than  $TH_{AI}$  and  $P_{txDSC_{Hest}}$  is smaller than  $(P_{txPDSCH_{allowed}} - X)$ ;

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{AI}$  comprises a threshold parameter,  $P_{txDSC_{Hest}}$  comprises an estimated power of the downlink shared channel,  $P_{txPDSCH_{allowed}}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

74. (Cancelled)

75. (Previously Presented) The method of claim 73, wherein the allowed power is decreased by less than or equal to  $X$ .

76. (Previously Presented) A method, comprising:

adaptively setting a reservation of channelization codes or an allowed power for a downlink shared channel of a transceiver based on parameters for a minimum allowed spreading factor or an allowed power level;

setting the parameters depending on a traffic load, a total load of a cell, and an availability of channelization codes;

measuring an average transmitted power of a physical downlink shared channel;

measuring a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period;

measuring a weighted code blocking rate, the weighted code blocking rate comprising a relative time during an observation period in which a larger bit rate than an actually allocated bit rate could have been allocated to a user equipment according to a link adaptation criteria for controlling the downlink shared channel;

adaptively adjusting at least one of a root spreading factor and the allowed power for the downlink shared channel of the transceiver based on results of the measuring; and

increasing the allowed power by  $X$  when  $A$  is greater than  $TH_{A2}$ , and  $P_{\text{txDSCHeft}}$  is greater than  $(P_{\text{txPDSCHeft}} - X)$ ,

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{A2}$  comprises a threshold parameter,  $P_{\text{txDSCHeft}}$  comprises an estimated power of the downlink shared channel,  $P_{\text{txPDSCHeft}}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

77. (Previously Presented) The method of claim 73, further comprising:

allowing higher bit rates, comprising decreasing  $SF_{\text{min}}$  when  $B$  is greater than  $TH_B$  and  $A$  is greater than  $TH_{A2}$ ;

wherein  $SF_{\text{min}}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $A$  comprises an activity factor of the downlink channel, and  $TH_B$  and  $TH_{A2}$  comprise threshold values.

78. (Currently Amended) The method of claim 73, further comprising:

decreasing a maximum bit rate, comprising increasing  $SF_{\text{min}}$  when  $B = \text{zero}$  and

$L_{code}$  is greater than  $TH_{code}$ ;

wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $L_{code}$  comprises a current load of a code tree, and  $TH_{code}$  comprises a threshold parameter.

79-82. (Cancelled)

83. (Currently Amended) An apparatus, comprising:

a processor configured to control a setter and a measurer;

the setter configured to adaptively set a reservation of channelization codes or an allowed power for a downlink shared channel based on parameters for a minimum allowed spreading factor and an allowed power level;

wherein the parameters depend on a traffic load, a load of a cell, and an availability of channelization codes; and

the measurer configured to measure:

an average transmitted power of a physical downlink shared channel,

a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period, and

a weighted code blocking rate, the weighted code blocking rate representing the relative time during the observation period where a larger bit rate than the actually allocated bit rate could have been allocated to a user equipment according to a link adaption criteria for controlling the downlink shared channel; and

wherein the setter is further configured to adjust at least one of a root spreading factor and allowed power for the downlink shared channel based on results of the measurement;

wherein the setter is further configured to decrease the allowed power when  $A$  is smaller than  $TH_{A1}$  and  $P_{txDSCHest}$  is smaller than  $(P_{txPDSCHallowed} - X)$ ; and

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{A1}$  comprises a threshold parameter,  $P_{txDSCHest}$  comprises an estimated power of the downlink shared

channel,  $P_{\text{txPDSCHallowed}}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

84. (Cancelled)

85. (Previously Presented) The apparatus of claim 83, wherein the allowed power is decreased by less than or equal to  $X$ .

86. (Cancelled)

87. (Previously Presented) The apparatus of claim 83, wherein the setter is further configured to:

allow higher bit rates, comprising decreasing  $SF_{\min}$ , when  $B$  is greater than  $TH_B$  and  $A$  is greater than  $TH_{A2}$ ;

wherein  $SF_{\min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $A$  comprises an activity factor of the downlink channel, and  $TH_B$  and  $TH_{A2}$  comprise threshold values.

88. (Currently Amended) The apparatus of claim 83, wherein the setter is further configured to:

decrease a maximum bit rate, comprising increasing  $SF_{\min}$  when  $B = \text{zero}$  and  $L_{\text{code}}$  is greater than  $TH_{\text{code}}$ ;

wherein  $SF_{\min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $L_{\text{code}}$  comprises a current load of a code tree, and  $TH_{\text{code}}$  comprises a threshold parameter.

89-92. (Cancelled)

93. (Currently Amended) An apparatus, comprising:

setting means for adaptively setting a reservation of channelization codes or an allowed power for a downlink shared channel based on parameters for a minimum allowed spreading factor and an allowed power level;

wherein the parameters depend on a traffic load, a load of a cell, and an

availability of channelization codes;

measuring means for measuring an average transmitted power of a physical downlink shared channel, a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period, and a weighted code blocking rate, the weighted code blocking rate representing the relative time during the observation period where a larger bit rate than the actually allocated bit rate could have been allocated to a user equipment according to a link adaptation criteria for controlling the downlink shared channel;

adjusting means for adjusting a root spreading factor and the allowed power for the downlink shared channel based on the measuring; and

increasing means for increasing the allowed power by  $X$  when  $A$  is greater than  $TH_{A2}$  and  $P_{txDSCHeft}$  is greater than  $(P_{txPDSCHallowed} - X)$ ;

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{A2}$  comprises a threshold parameter,  $P_{txDSCHeft}$  comprises an estimated power of the downlink shared channel,  $P_{txPDSCHallowed}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

94-96. (Cancelled)

97. (Currently Amended) An apparatus, comprising:

a processor; and

a memory containing instructions to cause the processor to perform the

following:

measure an average transmitted power of a physical downlink shared channel;

measure a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period;

measure a weighted code blocking rate, the weighted code blocking rate representing the relative time during the observation period where a larger bit rate than the actually allocated bit rate could have been allocated to a user equipment

according to a link adaptation criteria for controlling the downlink shared channel; and

increase the allowed power by  $X$  when  $A$  is greater than  $TH_{A2}$  and  $P_{txDSC_{Hest}}$  is greater than  $(P_{txPDSC_{Hallowed}} - X)$ ; and

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{A2}$  comprises a threshold parameter,  $P_{txDSC_{Hest}}$  comprises an estimated power of the downlink shared channel,  $P_{txPDSC_{Hallowed}}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

98-100. (Cancelled)

101. (Previously Presented) A computer-readable storage medium, comprising computer-executable components that cause a processor to perform the following:

adaptively setting a reservation of channelization codes or an allowed power for a downlink shared channel of a transceiver based on parameters for a minimum allowed spreading factor or an allowed power level;

setting the parameters depending on a traffic load, a total load of a cell and an availability of channelization codes;

measuring an average transmitted power of a physical downlink shared channel;

measuring a relative activity factor of the physical downlink shared channel, the relative activity factor defining the ratio between silence and activity of the physical downlink shared channel during an observation period;

measuring a weighted code blocking rate, the weighted code blocking rate being defined as the relative time during an observation period where a larger bit rate than the actually allocated bit rate could have been allocated to a user equipment according to a link adaptation criteria for controlling the downlink shared channel; and

adaptively adjusting a root spreading factor and the allowed power for the downlink shared channel of the transceiver based on results of the measuring; and

decreasing the allowed power when  $A$  is smaller than  $TH_{A1}$  and  $P_{txDSC_{Hest}}$  is smaller than  $(P_{txPDSC_{Hallowed}} - X)$ ; and

wherein  $A$  comprises an activity factor of a downlink channel,  $TH_{A1}$  comprises a threshold parameter,  $P_{txDSCHeat}$  comprises an estimated power of the downlink shared channel,  $P_{txPDSCHallowed}$  comprises an allowed power for the physical downlink shared channel, and  $X$  comprises a preset power value.

102. (Cancelled)

103. (Previously Presented) The computer-readable storage medium of claim 101, wherein the allowed power is decreased by less than or equal to  $X$ .

104. (Cancelled)

105 (Previously Presented) The method of claim 76, further comprising: allowing higher bit rates, comprising decreasing  $SF_{min}$  when  $B$  is greater than  $TH_B$  and  $A$  is greater than  $TH_{A2}$ ;

wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $A$  comprises an activity factor of the downlink channel, and  $TH_B$  and  $TH_{A2}$  comprise threshold values

106. (Currently Amended) The method of claim 76, further comprising: decreasing a maximum bit rate, comprising increasing  $SF_{min}$ , when  $B = \text{zero}$  and  $L_{code}$  is greater than  $TH_{code}$ ;

Wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $L_{code}$  comprises a current load of a code tree, and  $TH_{code}$  comprises a threshold parameter.

107. (Previously Presented) The apparatus of claim 93, further comprising: bit-rate-adjusting means for allowing higher bit rates, comprising decreasing  $SF_{min}$  when  $B$  is greater than  $TH_B$  and  $A$  is greater than  $TH_{A2}$ ;

wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted code-blocking rate,  $A$  comprises an activity factor of the downlink channel, and  $TH_B$  and

$TH_{A2}$  comprise threshold values.

108. (Currently Amended) The apparatus of claim 93, further comprising:  
bit-rate-adjusting means for decreasing a maximum bit rate, comprising  
increasing  $SF_{min}$  when  $B = \text{zero}$  and  $L_{code}$  is greater than  $TH_{code}$ ;  
wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted  
code-blocking rate,  $L_{code}$  comprises a current load of a code tree, and  $TH_{code}$  comprises a  
threshold parameter.

109. (Previously Presented) The computer-readable storage medium of  
claim 101, wherein the processor is caused to further perform:  
allowing higher bit rates, comprising decreasing  $SF_{min}$ , when  $B$  is greater than  $TH_B$   
and  $A$  is greater than  $TH_{A2}$ ;  
wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted  
code-blocking rate,  $A$  comprises an activity factor of the downlink channel, and  $TH_B$  and  
 $TH_{A2}$  comprise threshold values.

110. (Currently Amended) The computer-readable storage medium of  
claim 101, wherein the processor is caused to further perform:  
decreasing a maximum bit rate, comprising increasing  $SF_{min}$  when  $B = \text{zero}$  and  
 $L_{code}$  is greater than  $TH_{code}$ ;  
wherein  $SF_{min}$  comprises a minimum spreading factor,  $B$  comprises a weighted  
code-blocking rate,  $L_{code}$  comprises a current load of a code tree, and  $TH_{code}$  comprises a  
threshold parameter.